

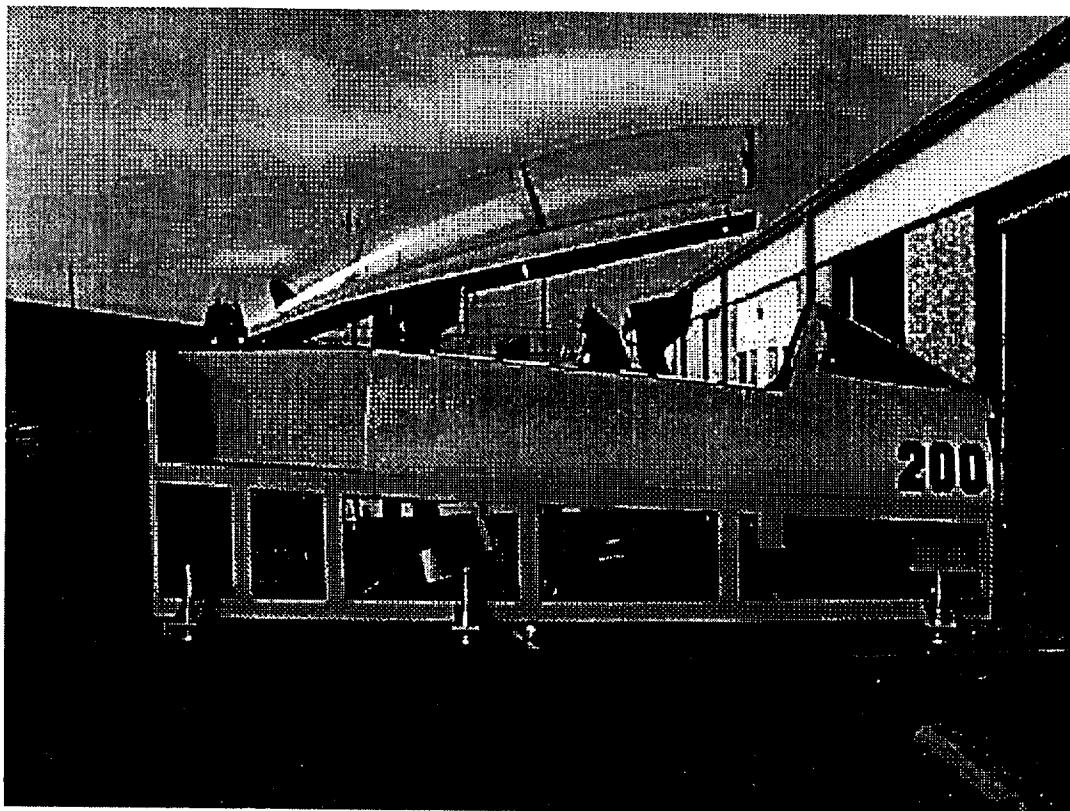
**SUMMARY OF  
PNEUMATIC CANOPY LABORATORY TRAINER**

APRIL 1998

Device 11H144

NAVAL AIR WARFARE CENTER TRAINING SYSTEMS DIVISION

ORLANDO, FLORIDA



**TRAINING CATEGORY:**

A School Maintenance Trainer

**ORIGINATING AGENCY:**

CNO/AIR

**SECURITY CLASSIFICATION OF DEVICE:**

Device 11H144 is unclassified.

**PURPOSE OF DEVICE:**

To provide initial training of Aviation Mechanic Equipment Technicians on the operation and removal and re-installation of the F-14 dual cockpit pneumatic clamshell canopy and associated control systems.

**INTENDED USE:**

Device 11H144 is used in a classroom environment to allow students to perform such organizational level maintenance activities as canopy removal, re-installation and demonstration of the normal and manual operational modes of the aircraft canopy system.

## **FUNCTIONAL DESCRIPTION:**

Device 11H144 consists of an actual F-14 aircraft canopy, low fidelity ejection seat mockup, a non-functional canopy emergency jettison system and associated components with indicator servicing components.

The 11H144 main support structure of the cockpit assembly is made of carbon steel and braced with steel angle. The replicated instrument panel blanks are supported and framed with aluminum angle and covered with 1/8" aluminum sheet. Replicating the actual aircraft's outer appearance, the outer shell is constructed from a composite construction skin supported by steel ribs to which the skin is anchored. The rib positioning was determined using actual aircraft data to establish locations. In areas where a minimum of support is required and the ribs are not needed for visual recognition. The ribs have been deleted in areas where a minimum support is required and the visual appearance is not significantly affected.

The trainer configuration provides the capability to simulate operating and servicing of the F-14 aircraft canopy system. This includes removal and installation of the canopy system, arming and disarming the canopy jettison system, as well as all basic canopy system functions. The trainer is complete with auxiliary equipment for removal and installation of these components. The auxiliary equipment consists of a portable crane hoisting unit, F-14 canopy handling set and a F-14 canopy jury strut. The portable crane hoisting unit is used for lifting the canopy during removal and installation. The canopy handling set holds the canopy in place while it is attached to the portable crane hoisting unit during removal and installation.

The canopy jury strut mounts on the canopy frame to hold the canopy in place while the actuator is removed.

## **PHYSICAL INFORMATION:**

Training Device 11H144 is 73.62 inches wide, 202.20 inches long and 97.34 inches high. Estimated weight of the trainer is 3,000 lbs.

## **EQUIPMENT REQUIRED (Not Supplied):**

None

## **POWER REQUIREMENTS:**

120VAC

## **PUBLICATIONS FURNISHED:**

Training System Utilization Handbook Pub. No. NAWCTSD-P-7341 (U)

Operation & Maintenance Manual, Technical ML W/Parts Catalog Pub. No. NAWCTSD-P-7342 (U)

Commercial Off-The-Shelf Manuals CCDS and Vendor Equipment Manuals Pub. No. NAWCTSD-P-7368 (U)

## **PERSONNEL:**

Instructor - One instructor/operator qualified in the operating and servicing of the F-14 aircraft canopy system.

Trainees - Up to three students.

Maintenance Men - One man qualified to perform repair, as required.

## **CONTRACT IDENTIFICATION:**

Manufactured by USM, Inc.,  
Houston, Texas, under:  
NAVAIRWARCENTRASYS DIV Contract No.  
N61339-94-C-0038

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